



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: Hyung-Jun KIM

Serial No.: 10/015,757

Group Art Unit: 2822

Filed: December 17, 2001

Examiner: Lewis, Monica

For: SEMICONDUCTOR DEVICE CAPABLE OF PREVENTING CORROSION OF METAL WIRES FROM CMP (CHEMICAL MECHANICAL POLISHING) PROCESS

* * * * *

INFORMATION DISCLOSURE STATEMENT

Honorable Commissioner for Patents
Washington, DC 20231

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MAR 14 2003
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6/18/03
ABR

March 3, 2003

Sir:

As a means of complying with the duty of disclosure under 37 CFR §1.56, and in accordance with 37 CFR §§1.97 and 1.98, Applicant(s), through the undersigned attorney, submits this Information Disclosure Statement. The patents, publications or other information submitted herewith are listed on the attached Form PTO-1449 and copies are attached.

In accordance with 37 CFR §1.97(c), this Information Disclosure Statement is being filed after the period set forth in 37 CFR §1.97(b), but before the mailing date of either a Final Action under 37 CFR §1.113 or a Notice of Allowance under 37 CFR §1.311.

The patents and publications listed on Form PTO-1449 were cited in a Korean Search Report mailed not more than three months ago in a counterpart Korean patent application. A copy of the

Korean Search Report is enclosed, together with an English translation of the Search Report.

Certification in accordance with 37 CFR § 1.97(e) is included herein. Accordingly, it is respectfully submitted that no fee is required by the filing of this Information Disclosure Statement. Should any fee be required, please charge such fee to Deposit Account No. 06-1358. A duplicate copy of this paper is enclosed.

CERTIFICATION

It is hereby certified that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.

Respectfully submitted,

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Atty. Docket: P67358US0
Enclosures
YSH: dj



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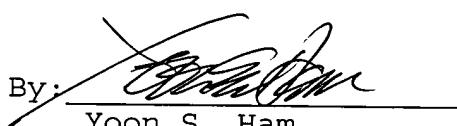
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Atty. Docket: P67358US0
Enclosures
YSH: dj

Information Disclosure Statement

U.S. Patent Application No. 10/015,757
Your Ref. No.: 11349-P67358US0
Our Ref. No.: P01H4018/US/wy

Issued Date by Korean Intellectual Property Office: January 27, 2003

Received Date by Korean Intellectual Property Office: January 28, 2003

Reference No.: JP Laid-Open No. 11-142871

JP Laid-Open No. 03-171735

JP Laid-Open No. 04-096343

JP Laid-Open No. 05-055218

(Translation)

NOTICE OF PRELIMINARY REJECTION

APPLICANT(S)

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APPLICATION No.

2000-80891

TITLE

*SEMICONDUCTOR DEVICE CAPABLE OF
PREVENTING CORROSION OF METAL WIRES
FROM CMP (CHEMICAL MECHANICAL
POLISHING) PROCESSING*

This application was preliminarily rejected pursuant to Article 63 of the Korean Patent Law based on the following reason. Should there be any opinion against this action, please file a written argument by March 27, 2003. (You can apply for 1-month extension per each case, and we do not notify you of the confirmation for such term extension.)

[REASON]

This invention described in Claims 1-11 can be easily invented by those skilled in the art as pointed out below. Accordingly, the above-identified patent application cannot be registered pursuant to Article 29, Paragraph 2 of the Korean Patent Law.

This invention described in Claim 1 is related to a semiconductor device comprising a plurality of metal wire patterns including fine line patterns and pad patterns, wherein an area ratio of the fine line pattern, having a width below 1 μ m, to the entire wire pattern is below 1%, in order to prevent corrosion of the metal wire patterns. This invention described in Claims 2-11 is also related to a semiconductor device using dummy fine line patterns to prevent corrosion of the metal wire patterns. However, this invention can be easily invented by those skilled from the cited references (JP Laid-Open Nos. 04-096343, 03-171735, 11-142871 and 05-55218).

[Attachment] *JP Laid-Open No. 11-142871
JP Laid-Open No. 03-171735
JP Laid-Open No. 04-096343
JP Laid-Open No. 05-55218*

Dated this 27th day of January, 2003

Examination Bureau IV
Examiner, Chi-Bok In

KOREAN INTELLECTUAL PROPERTY OFFICE

출력 일자: 2003/1/28
P00H-634

발송번호 : 9-5-2003-002413368
발송일자 : 2003. 01. 27
제출기일 : 2003. 03. 27



수신 : 서울 강남구 역삼1동 741-40 해천빌딩 특
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135-924

특허청 의견제출통지서

출원인 명칭 주식회사 하이닉스반도체 (출원인코드: 119980045698)
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지정된변리사 박정후

출원번호 10-2000-0080891

발명의 명칭 알루미늄의 화학적 기계적 연마공정에서의 부식을 방지하는 방법

이 출원에 대한 심사결과 아래와 같은 거절이유가 있어 특허법 제63조의 규정에 의하여 이를 통지하오니 의견이 있거나 보정이 필요할 경우에는 상기 제출기일까지 의견서 또는/및 보정서를 제출하여 주시기 바랍니다. (상기 제출기일에 대하여 매회 1월 단위로 연장을 신청할 수 있으며, 이 신청에 대하여 별도의 기간연장승인통지는 하지 않습니다.)

[이유]

이 출원의 특허청구범위 제 1-11 항에 기재된 발명은 그 출원전에 이 발명이 속하는 기술분야에서 통상의 지식을 가진 자가 아래에 지적한 것에 의하여 용이하게 발명할 수 있는 것이므로 특허법 제 29조제2항의 규정에 의하여 특허를 받을 수 없습니다.

1. 청구범위 제 1 항에 기재된 발명은 라인과 패드가 포함된 알루미늄 배선구조의 부식을 방지하기 위해 1마이크로미터 이하 선폭의 라인면적이 전체 배선의 1% 이하인 것을 특징으로 하고 있으나 이는 인용참증 일본국 특개평 04-096343('92.03.27)로부터 청구범위 제 2 내지 제 11 항은 더미 라인을 이용하여 알루미늄 배선의 부식을 방지하는 것을 특징으로 하고 있으나 이는 인용참증 일본국 특개평 03-171735('91.07.25), 등 11-142871('99.05.28), 등 05-55218('93.03.05)로부터 이 분야의 당업자가 용이하게 발명할 수 있는 것으로 인정됨.

[첨부]

첨부 1 일본공개특허공보 평11-142871호(1999.05.28) 1부
첨부2 일본공개특허공보 평03-171735호(1991.07.25) 1부
첨부 3 일본공개특허공보 평04-096343호(1992.03.27) 1부
첨부4 일본공개특허공보 평05-055218호(1993.03.05) 1부 끝.

2003.01.27

특허청

심사4국

반도체1심사담당관실

심사관 인치복



출력 일자: 2003/1/28

<<안내>>

문의사항이 있으시면 ☎ 042-481-5726 로 문의하시기 바랍니다.

특허청 직원 모두는 깨끗한 특허행정의 구현을 위하여 최선을 다하고 있습니다. 만일 업무처리과정에서 직원의 부조리행위가 있으면 신고하여 주시기 바랍니다.

▶ 홈페이지(www.kipo.go.kr)내 부조리신고센터